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ABSTRACT

This document contains five papers from a seminar devoted to the rise in the level of diplomas across the labor market. "Diploma and the Labour Market: Results and Questions Stemming from European Research" (Louis Mallet) discusses the findings of a recent study of six European countries in an attempt to explain the enormous growth in the number of people in all European countries with diplomas over the past 30 years. The dynamic relationships between the education system and labor markets and the implications of those relationships for policymakers were examined in "Shift in Skill Demand" (Christoph F. Buechtemann). "Diploma versus Skills" (Hilary Steedman) considers the question of whether firms' increasing hiring of highly qualified individuals is really driven by skill needs and the effects of technological advances on the skill levels required for various jobs. The validity of the hypothesis that the increase in the educational level in European countries is determined more by social demand for education than by demand generated in the production system is weighed in "Implication for the Training Strategy" (Luigi Frey). The main points raised during the seminar are summarized in "Diplomas and the Labour Market: The Debate so Far" (Jordi Planas). (MN)

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ED 421 621

AGORA — I

Raising the level of diplomas and their distribution on the labour market: the lessons of the past and prospects for the future

Thessaloniki, 30 June 1997

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Seminar

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AGORA — I
Raising the level of diplomas and their distribution on the labour market: the lessons of the past and prospects for the future

Thessaloniki, 30 June 1997

Jordi Planas
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Thessaloniki 1998

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Seminar

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FOREWORD

This publication is the outcome of the discussions held during the first seminar of the CEDEFOP "AGORA THESSALONIKIS" programme.

❑ What is the Agora Thessalonikis?

In ancient Greek the word AGORA means the market-place or square where matters of public concern are discussed. In creating the AGORA THESSALONIKIS, CEDEFOP wants to reflect this idea.

The main aim of the AGORA THESSALONIKIS is to create a forum for open, multilateral discussion in order to provide technical and scientific support for the decisions and negotiations on vocational training which involve the various partners (Commission, and social and governmental partners) within the European framework.

CEDEFOP is called upon to act as an interface between research, policies and practice, in order to provide the Commission, the social and governmental partners with a clearer understanding of changes coming about in vocational training within the EU countries, thus putting them in a better position to take decisions. CEDEFOP also aims to encourage scientists and researchers to identify and promote the areas of research of greatest importance to those whose job it is to decide on questions of vocational training.

Given that we are talking here about an interface between research and decision-making, the point is not to provide direct, practical support on specific decisions, but rather to use the results obtained from research and the university world, "interpreting" them in order to provide possible solutions to the main problems raised by the partners, supplying them with the information which will enable them to take their own decisions.

❑ Content

The theme of the seminar was: ***The rise in the level of diplomas across the labour market: past lessons and future questions***.

The introduction to the seminar was based on the results of a CEDEFOP study on six EU countries, conducted by the LIRHE (Laboratoire Interdisciplinaire des Ressources Humaines et Emploi, Toulouse University).

Whilst discussions took the results of this study as their starting point, the idea was actually to look at the main questions raised by the results in terms of the future shaping of education and training policies. Additional, broader input from research in this sector was also to be introduced into the discussions.

According to the results of this research, in spite of a general increase in the number of diplomas awarded over the last few decades, their distribution inside the labour market has tended to be driven by what education systems have supplied rather than by what companies have demanded.

These results raise some important questions about our usual approach to the relationship between diploma supply and demand on the labour market, and therefore about the effects of whatever steps are taken by the various agents (governments, companies and individuals) as regards education and training.

The results are tremendously interesting for public training/education policy-makers, and CEDEFOP suggested open discussions on this subject, focusing in particular on the future-oriented aspects which could emerge from them. The discussions sought to involve political leaders, the social partners, and researchers.

The idea was therefore to organise a discussion which would bring together researchers, political representatives and the social partners around these questions.

Discussions developed from an introductory memo which is attached to this booklet. Entitled "Diplomas and the labour market: results and questions from European Research", it was drafted on the basis of the CEDEFOP survey, under the responsibility of Professor Louis Mallet, the project leader.

During the introduction the other invited experts: **Professor C.F. Buechtemann, S. Barbara,USA; Professor Hillary Steedman, London School of Economics and Professor Luigi Frey, Rome University**, gave their opinions on the questions up for discussion from different research angles, in order to provide an overview of the various approaches to the subject. Their presentations, drafted after the discussions, are also included in this brochure under the following titles:

Buechtemann C. Shift in skill demand

Steedman H. Diplomas versus skills

Frey L. Implications for the training strategies

Finally, the last chapter of this booklet which is entitled **"Diplomas and the Labour Market: the debate so far"** aims at summing up the discussions which took place during the sessions of the seminar. I myself wrote this chapter and bear full responsibility for its limitations or any errors it may contain.

Jordi Planas
Coordinator of AGORA THESSALONIKIS

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AGENDA OF THE SEMINAR

Monday 30 June 1997

09.00 - 09.30	Welcome and opening of the seminar by Mr. Johan van Rens, Director of CEDEFOP
09.30 - 10.00	Introductory paper: findings of the research study "Diplomas and the Labour Market" and questions for discussion by Mr. Louis Mallet
10.00 - 10.45	Presentation of "statements for discussion" by the invited researchers: Mrs. H. Steedman, Mr. C. Buechtemann and Mr. L. Frey
10.45 - 11.00	coffee break
11.00 - 12.00	General discussion
12.00 - 12.30	1st round table Ministry/Social Partners Speakers: Mrs. Josette Pasquier, Mr. Alain Dumont and Mrs. Jos Leenhouts
12.30 - 13.30	General discussion
13.00 - 15.00	Lunch: buffet
15.00 - 15.30	2nd round table Social Partners/Ministry Speakers: Mr. Oliver Lübke, Mr. Klaus Schedler et Mr. Jean Tagliaferri.
15.30 - 17.00	General discussion
17.00 - 17.30	Final remarks: summing up and reflections by Mr. Mallet and Mr. Planas.

DIPLOMA AND THE LABOUR MARKET: RESULTS AND QUESTIONS STEMMING FROM EUROPEAN RESEARCH

LOUIS MALLET

General question: How to explain the enormous growth in the number of people with diplomas over the last 30 years in all European countries?

Generally speaking, there is a high level of education in Europe. This is mainly demonstrated by the extension in the length of training for young people which is spreading to the rest of the working population by means of a kind of demographic process since each generation is "better trained" (trained for longer) than the preceding one. The growth in the number of diplomas awarded, this shift towards the higher level of diplomas is just one measure of this phenomenon.

The most widespread idea amongst research staff, politicians and the social partners is that the training system must develop in line with the expected needs of companies (the manpower approach). The number of jobs in different occupations and sectors of the economy and the content of these jobs are changing rapidly and the training system must anticipate or prepare for these developments both in quantitative and qualitative terms.

All countries have taken considerable steps to improve their educational policy. The declared goal was, more or less implicitly, to contribute towards economic developments, to adapt the workforce to rapid technological progress in order to be better equipped to deal with the new conditions of national or international competition. By means of these improvements in competitive positions, the battle against unemployment, particularly amongst young people, is often presented as the ultimate justification for these policies.

The lack of success achieved at least in terms of unemployment and the fundamental changes in the characteristics of the workforce resulting from these developments led to a need for comparative reflection on the long-term effects of the policies pursued, effects on the functioning of the labour market, the mechanisms giving access to jobs and, beyond that, on more general questions such as the efficiency of our economies and the foundations of social mobility.

These questions are all the more important because they have to be addressed in all countries in Europe. Of course, the level of education in the different countries varies depending on the different infrastructure, time frames, and rhythms which, in turn, are shaped by the history of the educational systems and, more generally, by the history of the respective societies. The labour markets and the economies which absorb this increase in human resources also have very obvious special features. The analysis of the

national or social components of this phenomenon is of major interest when it comes to building Europe.

* * *

The retrospective study, which will introduce the debate, will show that an increase in the level of training can be attributed to causes and consequences which are far more difficult to interpret than the prevailing opinion would seem to imply. At the very least, however, it does provide some tools in order to address this problem from a different angle. In so doing it presents to the different players some questions about the foundations of apparent consensus.

❑ The CEDEFOP study - the questions raised and the results obtained

This study has been co-produced by CEDEFOP and a European research network[1]. Its central subject is the macro-economic or macro-social analysis of the consequences of investment in education on the labour market and on the assignment of human resources to the productive system. It offers some elements of a reply to a broad question: How is the increasing number of qualified people being distributed amongst the production system? The question could just as easily be phrased in a different manner: How can a labour system, which is constantly changing, absorb a workforce which has an increasingly high level of training?

The answers to these questions can be sought in different types of study. The limited choice of the European Research Network "Qualifications and the Labour Market" involved analysing the development of structures in the different occupations on the basis of the diplomas and the age of the employees involved and compared these structures at different times.

This analysis is not complete. The distribution of former trainees in the economy was examined on the basis of occupations whereas other analytic categories could be used (for example, sectors of activity, types of companies). Moreover, training (human resources) of people in employment has been assessed on the basis of two very global criteria: their level of diploma and their age, viewed here as a first approximation of their work experience.

It is the interim evaluation of two years work by six national teams which is the basis for this memo[2]. This study was carried out in line with a common method developed by

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[1] Cf. the composition of the network in the annex

[2] Cf. the summary article to be published in the Revue Formation Professionelle "Diplômes et marché du travail", L. Mallet et al. 1997

LIHRE (CNRS Toulouse-France) on six countries (France, Germany, United Kingdom, Netherlands, Italy, Spain) and at different times between 1975 and 1995.

This evaluation helped to establish common results and identify specific national features.

- **Similar results for the six countries:**

The structures broken down according to the diplomas and ages of people in the different occupations are very inflexible: for a time scale of ten years, the correlation between initial structure and final structure is somewhere between 63 and 85 % depending on the respective country. This inflexibility can only be partly explained by the stability of the individuals since there is considerable movement of the workforce between occupations even amongst those who are not new to the occupation. This means that the companies have basically reproduced their choices of recruitment or promotion and are continuing to combine the recruitment of young people (with a higher level of education) and the promotion of the workforce of all ages (basically those with a lower level of training) in the different occupations. The lack of a major break in the behaviour of companies and their slowness in substituting qualified staff with unqualified people are the main results. This "historical summary" which constitutes the starting point, therefore, plays a considerable role in the development of structures.

The shifts observed in the initial structures indicate a general and relatively homogenous increase in the average level of training as well as a move towards upper qualification levels which are also relatively homogenous in the different occupations. This means that all occupations have benefited from an increase in the level of education and not, as might have been expected, just a few occupations which were subject to considerable technological or organisational changes.

The availability of young people with a higher level of education and training, generation after generation, who enter the working population leads to changes in the structure of qualifications in the occupations by means of a simple knock-on effect. Everything would seem to indicate that the different occupations take from the labour market what they find and not what they require in terms of their specific needs. The development in the levels of diploma in each occupation can be explained by the general development in diplomas rather than by special recruitment behaviour within each occupation. This development could have been expected given for example the increase in the numbers in an occupation or the speed of change in the requirements for the different occupations.

If this effect of availability is the major phenomenon, the occupations are moving away from this general model. Some "over-consume" qualified people, others "under-consume" them. These residual effects probably have to do with phenomena linked to the training requirements of the occupations. They are secondary vis-à-vis the effect of availability but they also help to bring about another result: more recently it is mainly the unskilled occupations which have taken on a larger number of qualified people.

- **Specific national features:**

  The general trend, obvious in all countries, towards a relatively homogeneous distribution of diploma-holders amongst the different occupations, cannot necessarily be interpreted on the basis of a single explanatory analysis. The statistical categories, the quality and the level of aggregation of information, which depend on each country, may conceal very different phenomena.

  Moreover, in connection with this general trend, countries and periods show "unexplained" elements which call for more in-depth analysis. The structures of training, the legitimisation of diplomas and the training periods in each country have to be re-examined in order to explain the differences.

* * *

However, the overall result is somewhat troubling in respect of the general ideas behind educational policies: The widespread idea according to which the development of initial training is the response to developments in the requirements of companies or at least that this development is used by occupations in accordance with their own dynamics, is not really compatible with the homogeneity observed in the distribution of qualified individuals throughout all occupations.

* * *

All these results have to be confirmed and analysed country by country. The network is conducting its activities along those lines. Two major considerations have already emerged:

- The distribution of qualified people amongst the different occupations cannot be initially explained by the different needs of those occupations but by the presence on the labour market of an increasingly large number of qualified individuals.
- Will training activities, the effects of which on the labour market have still for the most part to be identified, have the same consequences? If our results are accurate and reliable, this question raises the need for forecasts from a new angle.

❑ Questions for our debate:

It is very important to correctly interpret our results and not to make them say what they don't want to say. Fuelling forward reflection raises different types of questions which have to be examined in a general manner for Europe as a whole and in a specific manner for each country.

The questions to which this study has provided some elements of a reply

- Does the increase in the level of training stem from the demands of companies or is it based on a social demand for exogenous education?

  Given our results we would tend rather towards the second theory except for saying that the demands of companies are general and undifferentiated for the occupations. This is by no means an unlikely.

- Is a diploma increasingly becoming a necessary precondition for obtaining a job?

  In general terms, yes and this also applies to the low levels of qualification. The availability of qualified people is an essential variable in the development of structures for access to an occupation. For a long time, diplomas which were not held by many people were a relative advantage for those who had them. Today, the abundance of diplomas means not having one can lead to exclusion.

- Does the abundance of qualified people run the risk of acting as an obstacle to people's career development and thus to social mobility?

  Yes, since not only is the number of people with a diploma on the increase but the structure of levels is changing which gives more direct access to jobs which were traditionally filled by means of internal promotion. However, since there is considerable inertia in the structure of skills in occupations, this substitution phenomenon is very slow. This is a problem for tomorrow.

- Is the link weakening between a diploma and a salary?

  Yes, because qualified people are no longer finding jobs on their level and are taking on jobs on a lower level. This "cascade" effect penalises the lowest levels of qualification, by increasing their vulnerability to unemployment.

Questions to which the study has not supplied any or only limited answers.

- Is the distribution of qualified people linked to changes in job contents?

  We cannot answer the question because the nomenclatures used are too aggregated and do not reflect the developments in contents. Our results would only seem to support the idea that similar changes have taken place in all occupations.

- Is the increase in the level of training a solution to short-term unemployment?

  Various studies show that in the short term and at times of high unemployment, training only provides a solution for limited shortages. In global terms, it merely leads to a rearrangement of the people in the queues. Our results simply say that the structure of unemployment based on the level of qualification has increased more quickly than the structure in the majority of occupations. Not only do the unemployed have more

diplomas than before but the "density" of diplomas amongst the unemployed has increased more quickly than in most occupations.

- Does the increase in the level of training help to raise productivity and, beyond that, from the angle of various macro-economic theories, does it lead to the creation and maintenance of new jobs?

  This study does not permit an answer. The widespread distribution of a larger number of trained people to the different occupations is very likely to increase the global productivity of that system. In other words, it is likely that training efforts have contributed to the enormous increase in the productivity of our economies. However, these results come from other studies. Our study does not comment on what is obviously a very important point.

- Have we had too much education in Europe in the last 20 years?

  This questions touches on the other ones. None of our results indicates that training efforts have been useless or inefficient. They fully support the idea that more training would have been useful. We cannot answer this question without having a standard (point of reference), i.e. without knowing how many people have to be trained and on what level. The results of the study seem to indicate that a standard based on differentiated demands according to the occupations is not the one which guides the developments in our systems.

* * *

❑ Conclusion:

This debate could be extended beyond the results of this study. If our societies have made considerable efforts to finance initial training, it is because the different players involved in this issue have reached some sort of consensus.

Three players are involved in the increase in the level of education: the state, companies and the young people themselves along with their families. Each player has two possible strategies: to encourage the increase in the length of training or not. The problem is raised in identical terms for the six countries under review even if the forms of extending schooling are shaped by the national contexts and characteristics of the training systems.

Up to now, these players were all interested in extending the length of study: all together for specific reasons and each separately for their own reasons, some of which may be contradictory.

All these players are at least implicitly convinced that the development in training is desirable both for the individual and for the national economy even if it is based on a vague and intuitive consensus. Few people would argue that undergoing study was not

desirable in terms of culture, social progress and work productivity in a society in which technical progress and international competition seem to guarantee prosperity.

But separately, the players base their beliefs in this consensus on less convergent reasons.

The heads of companies see in this opportunities for accessing more competent employees and for increasing the global efficiency of production and this all the more so since a wealth of skills directs pressure towards those at the bottom of the salary scale.

Given the current level of unemployment and the low marginal costs of training, young people - supported by their families - should be interested in obtaining the highest possible diploma in order to acquire the highest level of skill. Their training wishes are still linked to the prospect of social advancement and the idea of equal opportunities in education continues to argue in the same direction.

The state responds to the social demands of households, to the economic demands of companies and to the demands of educational lobbyists. In periods of high unemployment, keeping young people for longer periods in the education system may be one way of keeping them busy and of preventing a swell in the number of people looking for jobs.

The question is whether the foundations for consensus are going to last. Without taking up each individual argument, we would like to stress six possible points of fracture:

- The limits on public budgets. Almost everywhere, public spending is viewed as having reached its limits including expenditure on education. Any extension of the length of education costs money. If the state cannot foot the bill, will there be efforts to privatise education? Will this change behaviour?
- Social exclusion. Equal opportunities by means of education is a bit of a lame duck. The major development in training leaves people behind. The education systems increasingly have the reputation of promoting exclusion. In a context of limited resources, should money be allocated to extending the length of studies for some or to helping others to catch up who haven't benefited from this?
- The return on education. In a public system but even more so in private systems, households have to bear the costs of education. If a diploma no longer guarantees the expected salary and does not protect from unemployment, withdrawal behaviour will spread.
- Social mobility. The average increase in the length of study will be accompanied by an increase in the range of levels of diploma. Competition between young diploma holders and the more experienced but not-so-young could impede opportunities for career advancement. If the distribution of social positions is done in a premature and definitive manner by the education system, we cannot rule out reactions from older workers and their organisations. This development raises the problem of the resources allocated to training during working life which are on a very low level compared to the resources allocated to initial training.
- Challenging the education-productivity link. This is the theory of over-education: companies do not need people with so many diplomas. The extension of the length of studies costs more than it has to offer in terms of benefits. It merely increases

expectations (in terms of jobs and salaries) which cannot be met by our economy. In its strictest version, this theory sides with the theories on voluntary unemployment.

- The weakening of the link between diplomas and skills. In an environment in which jobs and organisations develop quickly, skills confirmed and validated by diplomas obtained on completion of initial training quickly become obsolete. Occupational competences are first developed either in companies or during continuing training. The real problem of companies and the social partners has to do with handling this new training process in an efficient manner and rethinking the certification arrangements in line with this new situation.

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All these different arguments advanced by the different partners are likely to seriously jeopardise the consensus on which the secular and extraordinary development of education in Europe has been based since the war. The scale of and the limits to each of these theories must be carefully studied. If they do not fundamentally challenge the foundations for investment in training, they do still offer strong encouragement to examine the possibilities for the future.

❑ Teams involved in the study

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SHIFT IN SKILL DEMAND

CHRISTOPH F. BUECHTEMANN

❑ The presented analyses are a valuable contribution towards understanding the links between the education system and labour markets and the dynamic relationship between them. As such, the analyses raise several critical points which will demand heightened attention from policy makers in the years to come. This commentator fully subscribes to the notion that supply-side factors have played a significant role as a driving force of the educational expansion. Specifically, the quest for more social equity and equal access to education, namely between the sexes, have had a strong impact on observable improvements in the educational attainment levels of the labour force in all countries under consideration. However, this does not mean that the absorption has not to a significant degree been driven by demand-side factors. This is to say that this commentator has some reservations regarding the conclusions drawn from the evidence documented in the synthesis report. These reservations are substantiated below.

❑ A first reservation relates to a methodological issue and is of a theoretical nature: the presented analyses cover a long period stretching from the 1950s all the way to the early 1990s, during which the formal educational credentials have been obtained by the different labour market cohorts under observation. Like in most other macro-research, the education system itself is treated as a "black box" over the whole period, assuming a stable production function of the education system in the sense that the formal education credentials produced in the 1960s and 1970s are equivalent in terms of acquired competences to the same formal credentials produced in the 1980s and 1990s. This implicit assumption is at odds with the widely shared notion that the competences expressed by one and the same formal education credential (and even more so by one and the same formal educational attainment level) have undergone significant changes over the period under investigation. Put differently: there are good reasons to believe that the quality of the output of education systems has changed not only in terms of the number and proportion of persons graduating from different education tracks, but also in terms of the competences that the graduates of a given education track (or educational attainment level) possess. Such changes in the competences of graduates with identical education credentials in part reflect shifts in the initial distribution of talent on the input side of education tracks. For instance, whereas in the 1950s and 1960s no more than 30 percent of an age cohort entered post-compulsory education, this share has reached levels around 80 percent in the 1990s in most highly industrialized countries; and whereas in Germany, for example, only some 10 percent of a cohort of school-leavers in the 1960s subsequently enrolled in higher education at a college or university, this share has since risen to almost 40%. These changes in the talent distribution and ensuing increasing heterogeneity on the input side must, *ceteris paribus*, have had noticeable effects on the quality of the output of education systems, even assuming a stable production function of the latter. Moreover, the past three to four decades have also witnessed substantial changes in the internal differentiation and functioning of education systems (that is, the production function of education systems): in fact, in most countries under consideration the educational expansion was accomplished not only through the widening of access to

the traditional tracks of upper secondary and higher education, but to a large extent also through the creation of new pathways leading to higher educational attainment levels, specifically the creation of vocational education tracks and the integration of pre-existing vocational or `polytechnic' education tracks (e.g. at industry schools) into the body of higher education. All this indicates that the type and quality of competences acquired under the heading of a given formal education credential or educational attainment level can be expected to differ substantially according whether the credential was acquired in the 1960s or in the 1990s, casting doubt on the implicit notion of equivalency underlying the analysis.

❑ Another methodological reservation focuses on the central demand side variable used in the presented analyses, occupation, and the implied assumption that changes in the demand for skills would show up in a shifting occupational structure of the employed labour force. Unfortunately, the synthesis report does not provide information about the type of occupation data used in the different country studies, i.e. about whether occupation was operationalized using DOT or ISCO categories at the two, three, or four-digit level. The latter does make a significant difference for measuring the role of demand shifts in accounting for observable shifts in the educational attainment levels of the working population. When using broad occupational categories, the analysis is likely to grossly underestimate the role of shifts in skill requirements within these occupational categories. Thus Abramovitz (1993), using relatively detailed occupation data, was able to show for the US that close to 75 percent of the increase in educational attainment levels could in fact be explained by mere changes in the occupational structure. Beyond this question of operationalization of the occupation, one can raise more fundamental doubts as to whether occupation as contained in population surveys is a good measure for technological change and hence for demand-side driven changes in skill and education requirements. Such doubts rest on notions about the specific nature of technological change prevailing in highly industrialized countries over the past two decades. Specifically, it is commonly acknowledged that the strongest impacts of technological change during that period have resulted both from the large-scale diffusion of new base technologies, primarily, but not only information technology, as well as, in more recent years, from far-reaching organizational changes (e.g., lean production and outsourcing). Both have led to task integration and a growing emphasis on cognitive as well as communication skills in the work place. A common characteristic of these changes is that they have not only created completely new occupations or increased the number of people employed in certain occupations, but have pervasively changed the skill requirements throughout the occupational hierarchy, from operative all the way to managerial jobs, thus rendering occupation a relatively poor indicator for shifts in skills demand. I therefore am not fully convinced by (although I sympathise with) the synthesis report's conclusion regarding the "determining effect of training supply as an explanation for the internal transformations within occupations".

❑ An interesting and very original concept put forward in the synthesis report is the notion that within occupations different generations compete with each other on the basis of education credentials versus experience. However, I would question the underlying assumption of equivalency between skills and knowledge acquired through formal schooling on the one hand and learning through experience on the other ("relationship of equivalence between level of certification and level of experience or between explicit and implicit experience"). This equivalency notion is standard in human capital theory and has been confirmed many times by Mincer-type wage equations (i.e. where the focus is on

wages, but not necessarily on skill requirements). My doubts regarding the validity of this assumption in the present context are derived primarily from my conviction that skills acquired in school settings and those acquired through mere work experience tend to be fundamentally different in nature and, therefore, can hardly be substitutes (although they can be complements - hence their `equivalence' in Mincer-type wage equations). With the prevailing direction of technological change, specifically its inherent bias towards abstract-cognitive skill requirements and the devaluation of concrete tangible skills, competences acquired in school-based learning settings have been gaining in importance vis-à-vis competences acquired through experience-based learning, thus, in fact, reducing the substitutability between the two. This would seem to have far-reaching consequences with regard to the competitive position of better educated labour market entrants vis-à-vis their experienced peers and in fact explain the rapid absorption of the younger cohorts with higher formal educational attainment levels. The very fact that the project has found the same tendency towards a rapid absorption of higher diplomas by the employment system for all countries under investigation, despite their highly different institutional infrastructure, would seem to indicate that technological and organizational changes, i.e., changes on the demand-side of the labour market, would account for a much larger share of the shift in educational attainment levels of the working age population than stipulated in the synthesis report.

❑ A further indication of the importance of demand-side forces in explaining observable shifts in employment patterns is provided by information on relative wages of highly educated workers. Regrettably, such information was not included in the first stage of the study. However, contrary to the supply-side interpretation offered in the synthesis report, there is little evidence of declining wage premia for higher education graduates. On the contrary, most available data for the 1980s and early 1990s show a high degree of stability in skill-specific wage differentials (e.g. Germany) or even rising wage premia for higher education graduates, indicating that demand for highly educated workers may have outpaced the supply of such workers. A substitution of better educated for less educated workers, which would be consistent with a supply-side interpretation, would imply declining wage premia for highly trained workers. The evidence, however, shows that in most OECD countries real wages have declined primarily at the lower end of the wage distribution. If these trends in labour compensation did not reflect changes in labour demand, but rather rigidities in wage setting mechanisms, then one would expect a disproportionate increase in unemployment rates for higher education graduates and better educated workers. However, the opposite has been the case in most OECD countries. Rather, the evidence would seem to indicate the existence of demand-induced skill bottlenecks in the first half of the 1980s which would explain the rapid absorption of the growing number of higher education graduates and the rising wage premia for highly educated workers during the observation period. To test the validity of the proposed supply-side interpretation, I would, therefore, strongly recommend the inclusion of data on education-specific unemployment and wage data in the analysis, together with direct evidence of the degree to which higher education graduates are actually employed in jobs that commonly require a college degree.

❑ Finally, for several reasons, I would strongly recommend the inclusion of the United States as a further country case-study within the given (and possibly enlarged) analysis framework. First and foremost, the USA differs from the other countries analysed by the fact that higher education is not provided free of charge, but in most cases involves tuition fees that have increased significantly over the past 10 years. As a consequence, the

United States can be characterized as a setting in which market signals (costs of education and expected future returns on human capital investments) play a larger role in individual education decisions and schooling behaviour. Secondly, possibly as a response to the above, higher education enrolments in the US have shown a distinctly different pattern over the past 15 years from those observed in most European countries. Whereas enrolments increased noticeably during the 1970s, this increase came to a halt in the early 1980s, reflecting declining wage premia for higher education graduates in the second half of the 1970s. Over the 1980s then, wage premia for college-educated workers rose significantly, indicating a high degree of responsiveness of the market for higher skills that marks a contrast to the situation in most European countries. However, the US experience also shows that education decisions and behaviour respond to demand changes only with a considerable time lag. This would seem to suggest that a ten-year observation period may in fact be too short to study the developments in the market for college skills.

❑ The trends analysed in the synthesis report imply a shifting of the costs of producing skills from the private sector (where the production of experience-based skills takes place) towards the public and towards individuals, with the former financing the higher education sector and the latter bearing, if not direct costs (e.g., tuition fees), so at least the opportunity *costs* of staying on longer in the education system. Several authors have convincingly argued that these opportunity costs of staying on in school are significantly reduced in the presence of high unemployment. This fact may be one important reason for the stipulated consensus-based coalition between policy makers (eager to keep unemployment levels low), individuals (consuming education provided free of charge), and employers (reaping the benefits/efficiency gains from higher skills that are provided free by the state). However, there is reason to believe that this consensus may become more fragile: for employers, specifically, the essential question is whether wage levels are attached to formal education credentials (and not to job requirements). Whereas employers may welcome a weakening of the nexus between wages and formal education credentials (particularly so in a situation of an excess supply of college educated workers), such a weakening of the credential-pay nexus would negatively affect the position of insiders and their representatives (unions) since they would have to fear downward pressure on their wages from (or, in the worst case, a substitution by) new highly-skilled labour market entrants.

DIPLOMAS VERSUS SKILLS

HILARY STEEDMAN

The research carried out by Professor Mallet and his collaborators is provocative and shocking in the best possible way. It causes us to think and re-evaluate the extent to which education and training structures and processes are responding to the changing skill requirements of the economy. Schools and universities are producing increasingly large numbers of highly qualified young people. The problem highlighted by the research is the apparent very great regularity across different occupations of the rate of absorption by the economy of the more highly-qualified members of the labour force.

The question raised is whether this growing consumption of the highly qualified by firms is really driven by skill needs. Are firms employing more highly qualified individuals merely "because they are there"? This, in turn, raises the question as to whether resources devoted to education and training are being misdirected, in fact whether the great effort of public investment in the expansion of higher education that we have seen in Europe has been really necessary?

One of the problems of commenting on the paper is that it makes us realise how difficult it is to make well-founded general statements about how and why firms' skill needs have changed over the last ten years. It is much easier to study the supply of qualified people on the labour market than to it is to study changes in the demand for skills in the economy. Professor Mallet's interpretation of the reasons for the observed changing demand for skills is one way of explaining the observed regularities but there are other possible explanations. As a contribution to a vital debate I will here try to sketch an alternative scenario that also fits the facts.

Professor Mallet's research focuses on a period of time when considerable change has taken place in what our economies produce and how they produce. Many jobs have changed over this period out of all recognition and the consensus is that the pace of change, far from slowing down, will continue or even speed up. While economists still debate the relative roles of the different factors producing these changes, there is now much convincing evidence for the widely-held "common-sense" view that the following factors are important.

First, the more efficient exploitation of information and control technology based on the microchip has helped to reduce the demand for much routine unskilled work. Second, national competitive pressures in both the non-traded and traded sectors of the economy to improve variety and quality of goods and services and to do so more rapidly account for much of the increased demand for more highly educated workers. In the traded sectors of the economy competitive pressures have increased as a result of the great increase in world trade. These pressures force companies to become more efficient in order to compete internationally and to ensure that they recruit the skills they need and use those skills to full effect.

But considerable changes have taken place in the non-traded mainly service sectors of the economy also. Privatisation of public monopolies and the introduction of internal markets have also placed pressures on parts of the service sector to improve performance. In short, the ten year period examined in the study has been a period of harsh competitive pressures for firms. Can we imagine that they have been hiring for example, more graduates - and paying a graduate wage premium for fun, or out of ignorance or absent-mindedness? I am not convinced and that is why I consider it important to recall that - even though the *supply* of highly educated individuals has grown tremendously over the last 10-15 years - on average graduates can still command a wage premium over non-graduates.

But let me first provide some examples of the sorts of changes I have been mentioned and how they have affected employees, their job content and the skills required to do their jobs. These examples are taken from visits to companies made over the past two or three years in Sweden and in England and from a study published by the NIESR in 1995 examining the jobs taken by graduates in England following the recent very considerable expansion in graduate supply (Mason 1995).

An illustration of the way in which organisational and technological change has reduced demand for the low-skilled can be found in the English water company which I have been studying. The water industry in England was privatised in the late 1980's and tends to date its history in terms of BP and AP - before privatisation and after privatisation. This part of the of the public utilities sector might well be considered one little affected by technological and organisational change. In fact the reverse is the case.

There can be no doubt that privatisation hastened a trend which had been gathering momentum only slowly in the BP era. In that era, in the 1950s and 1960s, the industry had a work force which was, with the exception of managers, without any school qualifications and which was employed on essentially manual tasks.

In the 1990s, a number of factors combined to change the skills required to work in the industry. These changes meant that employees without the capacity to learn and upgrade their skills were obliged to retire from the industry and that future recruits were tested for basic literacy and numeracy. The first of the factors was much higher water quality standards introduced by the European Commission. The second was a much more advanced standard of control technology involving the use of micro computers to monitor and provide information on every stage of the water purification process. The introduction of computer technology was partly the result of the higher EU quality standards but also the result of UK government regulation which accompanied privatisation and required more careful monitoring and more consistent quality and supply.

Since privatisation the workforce engaged on water supply in this company has been halved from 10,000 to 5000,while both quality and quantity of water has been increased. The aim is to retrain the whole of the remaining workforce to a recognised standard of vocational competence. The Water Company illustrates the requirement for a higher minimum threshold of literacy and numeracy and a degree of trainability. Much of what has been observed concerning operator skills in the water industry applies equally to process manufacturing in general and echoes our findings in e.g. the paper-making industry in the late 1980s.

The most fundamental change in skill requirements in the water industry is that operator literacy is, I was told, now a necessary condition of employment. Furthermore, it is not just a requirement of the company but part of the conditions of the company's operating licence.

Operators no longer observe or taste the water flowing through the plant but interpret information in alpha numerical format relayed from automated test equipment to operators' monitors. The operator must not only be able to read the information from the screen and check it against paper documentation but interpret it correctly and decide on appropriate action where necessary. Instead of interpreting physical phenomena using primary senses, he works from the abstract representation of phenomena. In the BP era, customers had to be fairly tolerant of changes in pressure and even in the colour of their water and operators were required to do no more than ensure that a fairly wholesome liquid flowed through the pipes most of the time.

Now, with regulatory authorities requiring companies to consistently reach high quality standards, the operator must react immediately to unpredictable physical changes monitored and represented in abstract form and take appropriate remedial action. At this basic operator level of employment the skills required are defined to be straightforward and predictable with the control technology adapted to prevent the operator taking any but the most routine action - all other contingencies to be referred up to the next level of supervision. Even so, learning costs are high. All employees in water processing have been or are being trained to national skill standards for the industry requiring between 6 weeks and three months on the job training. Furthermore, future retraining is a certainty because the technology currently in use is already dated and will be progressively replaced. So capacity to learn quickly is important to the company's balance sheet even at this fairly basic level.

At the intermediate skill level, increases in uncertainty, unpredictability and the ability to quickly produce correct solutions were also singled out by the manager of a company visited in Sweden repairing a well-known brand of PC and associated equipment. In the deep recession of the early 1990s this company had no longer been able to keep afloat repairing the products of its parent company and had chosen to accept to carry out repairs for a wide range of electronic communications equipment from different manufacturers. Technicians had previously followed fairly routine standardised work practices. When a repair needed to be carried out they consulted the appropriate manual and acted according to the instructions they found there. When the company started to repair equipment from other manufacturers, technicians were faced with repairing machines for which they had no manuals and little guidance on how to obtain the information needed.

Previously, the company required the more routine skills of working from manuals and using set procedures. Now, however, the company needs employees who can search for solutions to problems they have not previously encountered. The company now needs employees to develop skills of judgement, the ability to search independently for a solution and to use their own initiative.

These findings were echoed in a study of the graduate supply shock in Britain (Mason *op.cit.*). This study was prompted by the enormous increase in participation in higher education since the late 1980s. The proportion of the age group entering higher education

in 1992 in the UK was twice as high (at 30 per cent) as it had been in 1982. The aim of the study was to find out more about the sorts of jobs that this greatly increased supply of graduates were doing. The study presents evidence that:

- in manufacturing, higher value-added products and new technology required graduate level skills where these had not previously been needed
- in large companies in the service sector (financial services) the refocusing of banks on sales of a much wider range of financial services had created a demand for the ability to absorb and process and apply a wide range of rapidly changing information in a retail environment.
- Some graduates were entering non-graduate jobs, in some cases at higher pay rates and in others at the same pay rate as non-graduates. But Mason's study suggests that there are cases of graduates recruited to non-graduate positions where supply was reshaping demand.

One manager explained: -
"Putting a higher grade of people in low-level jobs [such as on telephone help lines] gets a better standard of performance... They [graduates] are more articulate, they understand some aspects of the job better [e.g. cross-selling of different products]...

Many young women leave school and enter employment as secretaries. In this field also, change in the skills required has been considerable. Here I draw upon a report that I am writing for the OECD based upon expert studies from six countries. Secretaries are of particular interest because from being in the past a group primarily recruited with little further training or study recruitment is increasingly from longer courses of general and in particular from longer courses of vocational education and training.

The work of secretaries has always been less routine and more unpredictable than many similar clerical and administrative occupations. However, in recent years their work has been transformed by the three major forces shaping the demand for skills, new information technology, increased internationalisation of business and increased competition between companies on quality of service. This new climate means that managers now frequently share secretaries, managers are more frequently on the road but continuing to work out of the office by means of new tools of communication -the mobile telephone, the modem and the Internet.

The reports prepared by experts in individual OECD countries for this project identify varying combinations of competitive pressures and rapid technological innovation which put a premium on the ability to learn swiftly - while doing. Secretaries are expected to function efficiently but also to update swiftly on new technology, use new technology to its full potential, manage time and retrieve information efficiently, and take some decisions independently of managers.

A recurrent theme that can be identified from these examples is that at every level of skill those who are active on the labour market are being required to learn and update their knowledge almost continuously - and certainly more frequently than in the immediate past.

Employers in a number of European countries, notably France, Sweden and Britain are finding that the foundations provided by initial schooling and training are not those needed to equip all employees to learn fast enough and often enough to keep up with

technological and organizational change. Once these capacities have become essential for the survival of a company, employees without the ability to learn both on and off the job become a financial liability. This learning, whether it takes place on or off the job constitutes an increasing cost for companies. I would suggest that replacing employees having lower level qualifications with those qualified to higher levels is part of a strategy to reduce such costs. A highly-educated employee might be expected to learn faster than one with only limited further study experience. In the short and medium term the higher graduate premium would be more than offset by a saving in learning costs. So I would argue that employers may be interpreting qualifications as signals about learning ability rather than simply about knowledge acquired.

How might we expect such a situation to affect employees. I would argue that this might occur in three ways which can all fit the data in the study. First those employees who showed low capacity for flexibility and autonomy would be let go through natural wastage or early retirement. This would be followed by the recruitment at a higher level or upgrading of existing employees to a higher level. This was a strategy followed by the English water company.

Second, new employees might simply be recruited at the next highest educational level and the more routine tasks would then be reserved for the lower qualified employees as happened in the Swedish company. Third, the recruitment strategy could be quite drastically reformulated and skilled craft employees could be replaced by graduates with similar job descriptions e.g. production manager but with very differing responsibilities - this was the situation described in Mason *op.cit.*. and this was also occurring in Britain in the case of some secretaries.

The requirement for flexibility and autonomy in the face of uncertainty (with regard to technological and organizational change) has been shown to be widespread and not confined to a few leading manufacturing sectors but across a variety of service sector occupations (Employment Institute, Sussex). In my view therefore, the findings of Professor mallet's study could be interpreted in the light of research showing a rising requirement for learning skills across many sectors.

Does this mean that all is well with the output of the education and training systems of the countries concerned? Well, of course, it says nothing of the sort. Employer and employee representatives in most European countries have very little possibility to influence what goes on in schools and colleges where most of these skills are produced. And employer and employee representatives in a number of European countries including the UK have recently made clear that the output of the schools does not meet changing skill requirements in a number of ways. The study itself shows that employers continue to value experience in older employees as well as higher levels of qualification in young people. So there is no cause for complacency. But employers generally make choices which they believe will benefit the profitability of their enterprise. They continue to employ more people with higher qualifications and to pay them more than individuals with lower qualifications. We must believe that this is a rational choice and our task now must be to try to understand better the reasons for that choice.

IMPLICATIONS FOR THE TRAINING STRATEGY

LUIGI FREY

In line with the results of research into "Diplômes et marché du travail" we start from the hypothesis which seems justified by other research done into the situation in Italy (cf. L. Frey in Istruzione e lavoro in Italia, Journal of Labour Economics, No. 58, Angeli, Milan, 1997) that the increase in the educational level in European countries is determined more by the social demand for education than by the demand generated by the production system.

In the light of this research it seems correct to assume that the attainment of a relatively high level of education is essential but not sufficient in itself to ensure employment. In fact, among those holding higher educational qualifications (in particular, university graduates) there would seem to be a greater possibility of finding employment and less chance of being faced with long-term unemployment compared to those who have a relatively low level of education although there are signs of increasing unemployment among graduates and those leaving school with qualifications. The research indicates that unemployment among the latter is directly related to the demand for labour expressed by the production system, particularly by the service industries.

While research cannot answer the question as to whether the increase in the level of education is conducive or otherwise to productivity, it is reasonable to assume that the rise in the level of education raises productivity in the tertiary sector. This hypothesis is also reinforced by research results on the labour productivity of graduates or qualified school leavers as compared to less qualified workers. It is equally reinforced by the assumption that the need for economic balance in the production unit contributes to eliminating the differences associated with productivity.

On the other hand, the relationship between levels of education and levels of productivity would be reinforced if use were made of the term learning (including learning by doing, learning by using and learning by interacting) instead of the more restrictive term education.

Such an hypothesis has the following consequences for training strategies:

There is an increasing need for a strategy of lifelong learning for all in line with the contents and characteristics of the recent OECD publication in 1996. This is a strategy which, in trying to upgrade all available human resources and to provide equal opportunities for all and an equal distribution of wages, does not focus solely on raising the level of education for young people but also on raising the training level of adults. These adults also include, in the context of a progressive ageing of the population and policies of gradual retirement, older workers who, not only in Italy, have a relatively low level of education which is on average inferior to that of young people (on account of characteristics, age, the rise in the level of education over the past 30 years).

The training strategies of lifelong learning for all are different from those which aim to increase the level of education for young people and to set up systems for training and retraining in favour of adults. It is a strategy for all to have learning throughout life regardless of age. This is, therefore, a multidimensional process for training to enable each individual "to increase and adapt knowledge and skills and the capacity to judge and to act" (cf. J. Delors in Learning: The Treasure Within, UNESCO, Paris, 1996). The training and retraining of adults is not a system in itself. Young people and adults (including older age groups) are the active subjects of ongoing education processes which vary in form and are both formal and non-formal (including the recognition of working experience) throughout life.

Following such a strategy requires profound examination of priorities depending on the aims of the training policies. These raise delicate issues concerning cost-benefit analysis related to such policies and the need to verify the social consensus or lack of it when comparing priorities.

As far as cost-benefit aspects are concerned, an important point which emerges concerning costs, in view of current budgetary limitations on funding which can be channelled directly to initial training, relates to the priority attached to raising the level of training for new generations with regard to the aim of improving more rapidly the level of education of adults (not just by formal means) and particularly the older groups who have a markedly lower level of education. In the light of the remarks made earlier there is also a need to respond to other needs and to continue concentrating available public resources on raising the level of education for the largest possible number of young people. There is a need to raise the level of education and qualifications at upper secondary school using material, financial and human resources to gradually create the conditions of equality of opportunities for those of middle age and higher (not only women) who have a relatively low level of education (or even very low) thus allowing them to participate in the process of lifelong learning for all.

The conflict between continuing to give absolute priority to using public resources to support (through policies to serve education) the process of raising the level of education for young people and to encourage a university education on the one hand and, on the other, giving sufficient attention to raising the level of education for adults (including even the older age groups) is very obvious when there is long-term youth unemployment attributable to industrial restructuring to which adults are more exposed on account of a low level of education and little capability of adapting to the changes. Such a conflict prompts the question as to whether it would not be more opportune to allocate less public resources to promoting the heavily subsidised university education of young people and to provide more resources for the training and retraining of adult workers (before the problems of unemployment become dramatic in nature) taking into account the fact that the income of the head of a family is essential for family support while young unemployed young people have sufficient time (without substantial social pressures) to find employment more or less in line with their needs.

There is a growing similar conflict, although more indirect, between the absolute priority given to those receiving public resources to promote the level of education to allow young people a university education and the resources allocated to older groups which are growing in absolute terms in the overall population in European countries. The current and increasing difficulties of balancing the budget also creates marked problems in setting

priorities between the resources for education and resources required for older sections of the population. To the extent to which the level of education of older adults is very important for the strategy of gradual retirement which delimits the resources required for retirement, training strategies which attach sufficient importance to the training and retraining of older groups is assuming considerable importance (this conflicts with the absolute priority attached to raising the education level of young people).

Concerning the cost-benefit aspects, from the point of view of benefits, there is a need to review the role of implicit knowledge attributed to social and working experiences if attention is to be devoted to a dynamic combination of formal and non-formal education and working experience with regard to the higher levels of occupational competence and managing the processes of change. The training needs of managers in a position to adapt constantly to ongoing technological and organisational change gives priority to recognising the working experience of individuals in higher positions through developing training strategies for adults. The problems of upgrading the human resources at intermediate level and the dissemination of new technologies and organisational innovation (re-engineering) would prompt giving greater priority to training strategies to raise (and maintain qualitatively) the levels of training for adults (even the older groups) who have been (re)integrated in the production process.

It should be stressed that attaching adequate importance to the aims of adult training and retraining even for older groups as an alternative, even though of a partial nature, to the priority attached to raising training levels for young people, is crucial for the active participation of all in the social and economic transformations taking place. It is compatible with the social consensus on training strategies pursued in various geographical areas.

On the basis of this, the experience gathered in various countries suggests that to achieve the strategy of lifelong learning for all there is a need for an array of coherent policies based on three underlying principles (cf. For later training, OECD, Lifelong learning for all, Paris, 1996, p.97):

- a lifelong learning system cannot be imposed but can only be created through the initiatives of the various social actors;
- in this context, the public authorities should not play an exclusive role but should guide and monitor to ensure that the resources available for implementing such a strategy are allocated in a just, flexible and efficient way;
- the nature of such strategies (which are different from those of traditional continuing training strategies) means there is a need to form an integrated system of economic and social policies implemented at macro and structural levels.

Creating such a system and the integration of these training strategies in this area requires overcoming obstacles at the structural and institutional levels and in the behaviour of individuals and groups. The active cooperation of organised social forces is important: these and the public authorities at the various territorial levels should be given every opportunity to participate actively in removing barriers and obstacles and in nurturing the broadest possible social consensus (including outsiders, potential workers) in setting up, checking, reviewing and continually renewing such training strategies thus attaching increasing importance to effectively attaining the aims of raising the levels of training not only for young people either in work or potentially taking up work but also for adults, including the older age groups.

DIPLOMAS AND THE LABOUR MARKET: THE DEBATE SO FAR [3]

J. PLANAS

The aim of this chapter is to reflect the main points raised during the discussions on "Diplomas and the labour-market" and the different viewpoints expressed on them by participants in the AGORA THESSALONIKIS seminar.

The main research results, which are presented at greater length in Louis Mallet's chapter, show that the distribution of diplomas in the labour-market in all the countries surveyed **(Germany, Spain, France, Italy, The Netherlands and the UK) does not reflect any specific demand from the professions** as is generally claimed by the social partners, researchers and "politicians".

The presence of diplomas in the different professions is undergoing a change, showing an almost uniform increase in all professions, along with a simultaneous increase in the number of diplomas within the education system.

These results which, to use H. Steedman's words, are provocative in the best sense of the term, raise numerous questions. Discussions during the AGORA seminar were based on the following key questions[4]:

- To what can this increased level and number of diplomas be attributed?
- Can this relatively uniform increase in all professions be interpreted as an indicator of over-education?
- Has there been a change in the content and "signifier" of diplomas?
- What is the relationship between diplomas (what they represent) and the skills which companies require?
- What role do diplomas play in the individual's training strategy?
- What are the consequences of the answers to the above questions for the future of education and training systems?

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[3] This chapter aims at reflecting the discussions which took place during the seminar on "Diplomas and the labour market" in the framework of the CEDEFOP "AGORA THESSALONIKIS" programme, with the participation of researchers, and representatives of employers, employees and public administrations. In order to draft the text I have used the transcriptions of what was actually said during the seminar and in the "heat" of discussions.

[4] During the debate certain methodological questions were raised on basic research (C. Buechtemann, K. Drake and M. Tessaring), but seeing as these were not the object of discussion they have not been systematically included in this "run-down" of the debate.

❑ To what can this increase in diplomas be attributed?

If this increase in training levels does not correspond to any specific and individualised demand from the different professions, as all sides have claimed, how then can we explain the major efforts made by all parties (individuals, families, the State and companies) to support such a development?

Two types of answers, which are not in any way mutually exclusive, were proposed during discussions:

- Firstly, this virtually uniform spread of diplomas is seen as a reaction to an almost identical global demand for qualifications sparked off by the introduction of new technologies into almost all professions and by the evolution of an economy which is pushing to improve the variety and quality of goods and services.
- Secondly, this widespread increase is seen as reflecting a consensus reached between all parties (individuals, families, the State and companies) based on the common belief that education is a fundamental factor in the economic development of countries and their businesses. Each individual party has additional reasons which contradict one another to some extent (see L. Mallet's chapter).

Is this consensus, which allowed education and training systems to develop in leaps and bounds, now undergoing a crisis? If so, what factors have broken the consensus?

In other words, as K. Schedler states, has the balance - the balance, that is, between the "social demand for education" and the "manpower requirement" - been upset?

During the debate various potential reasons for this crisis were put forward, along with others which aimed to show that the consensus still exists, thus justifying "*mutatis mutandis*" the further development of education in our countries.

Some of the crisis factors mentioned were:

- curbs on (or cuts in ?) public spending;
- increased demands on household budgets;
- social exclusion and its links with education, including unemployment amongst those holding diplomas;
- the drop in education returns for the individual (J. Pasquier);
- the need to strike a new balance between the efforts put into initial training and into life-long learning (L. Frey);
- the risks of "over-education", and therefore under-employment amongst graduates (A. Dumont and J. Pasquier);
- the weakening of the link between diplomas and the skills demanded by firms (A. Dumont).

Amongst the factors which were mentioned as helping to consolidate the consensus on a widespread increase in education levels were:

- the persistence, regardless, of the generally-accepted opinion (based on de facto information and popular wisdom) that school education is fundamental to the growth of the economy (J. van Rens);
- the role of diplomas as a fundamental indication of the individual's social and professional standing (J. Tagliaferri);
- the role of an increasingly educated and hence increasingly qualified workforce in company competitiveness, particularly within an economy which is becoming more and more tertiarised (L. Frey);
- evidence of changes in the nature of work due to the presence of diploma holders in professions traditionally occupied by those with no diploma tends to make workers more productive and perform better in terms of new technologies and the demands of production "processes" (H. Steedman and C. Buechtemann);
- the irrationality of a mechanical linkage of initial training and a first job when education is seen as a lifelong process for which initial training should lay the foundations; this explains the interest in providing a broad training which facilities the development of professional careers: workforce mobility and lifelong learning (O. Lübke);
- and, last but not least, one cannot think about education in purely economic terms, forgetting its cultural role in building citizenship, social cohesion, etc. (O. Lübke, A. Dumont and J. Leenhouts).

❑ Can this relatively uniform increase in all professions be interpreted as an indication of over-education?

Despite the fact that the introductory document to the debate (L. Mallet) explicitly rejects any such interpretation, a number of speakers stressed the risk that these results could be interpreted as a sign of over-education and, in particular, that this interpretation could have negative repercussions on educational policy and education-related budget policy.

- The risk with this kind of interpretation stems from the fact that the results contradict the "traditional" way of interpreting the relationship between diplomas and the labour-market, based on a correspondence between training and work ("manpower approach"), and could well be interpreted as a sign of too much education (over-education).
- In any event, C. Buechtemann and H. Steedman have suggested an interpretation of the same results which runs fully counter to the over-education thesis (see C. Buechtemann and H. Steedman's chapters), and according to which this virtually identical widespread increase in the level of diplomas in all professions is a reaction to a similarly widespread demand for more qualifications in all professions. According to this interpretation, the widespread increase in diplomas is not a reaction to the specific demands of professions, simply because at this level the professions do not in fact have any specific demands. It is rather a general demand amongst all professions. This interpretation of the results of basic research would square with the "reaction to demand from the labour-market" thesis.
- H. Steedman points out that, for companies, assigning more qualified manpower to less qualified jobs means that performance levels can be increased. Graduates tend to

express themselves more clearly and have a better grasp of certain aspects of their work.

- In any case, as K. Drake points out, because the framework used for analysing the links between education and employment, and work and productivity is weak on theory, this leaves tremendous scope for value judgements, "opinions" and ideological stances, without the scientific tools being available to either reject or confirm them in any conclusive manner. The "black box" remains.

In any case, the "supply effect" shows that basic research does not prejudge whether education is correctly or incorrectly used in terms of productivity, but that it creates a link between two types of nomenclature, that of the professions and that of diplomas in each country. Reference research does not take account of productivity aspects which tend to be more related to changes in the content of professions when they are occupied by people with a higher level of diploma, whilst retaining the original job description; neither does it take account of the relationship between diplomas and differences in salary. Other studies have shown (as J. Leenhouts, H. Steedman and C. Buechtemann have stressed) that the content of many occupations is changing without there being any corresponding change in job description, even though these occupations require people with more and more training, which would explain and justify the increase in the level of diplomas amongst those exercising the profession.

In any case, it is plausible that the relationship between occupations and diplomas is not merely the result of diplomas adapting to jobs in each profession, but rather that we are faced with a much more interactive phenomenon.

Summing up, although basic research does not provide any proof to either support or refute the over-education phenomenon, other studies provide clues which would lead us to think that the over-education phenomenon, if it really does exist, is certainly not widespread.

❑ Have the content and meaning of diplomas changed?

What all diplomas have in common is the fact that they are certificates awarded by national education systems indicating the level of education reached, taking initial training as the baseline, and being relatively equivalent or comparable from one country to another. The increase in diplomas is the legal expression of the educational expansion mentioned beforehand.

Despite being basically stable in its legal form, the content and, more particularly, the signification of diplomas have changed and this, according to what was said in the discussions, is due to several factors:

- Firstly, same-level diplomas, corresponding to an equal number of study years, do not necessarily correspond to an equal level of qualification either within a given study channel or when compared with others. Having the same level of diploma has never implied equivalence of available qualifications. The widespread increase in the level of diplomas, as the result of very different approaches to study on the part of students who sometimes continue their studies not out of intrinsic interest but rather because there was no other alternative such as work and on-the-job professional advancement,

means that the real result of qualifications "certified" by an equal level of diploma is more diversified than in the past in a context where access to a professional career through work offered a real alternative to study (A. Dumont, J. Pasquier).

- Moreover, C. Buechtemann points out that, over the last 15 years, the curriculum content for same-level diplomas has changed substantially in all European education systems.
- The market value of certificates of study has also changed over recent decades. Their value as a reference has diminished as overall numbers have increased, for market reasons, and there are no longer the same number of guarantees on returns. But this is very much a market unto itself, where diplomas have at the same time increased in value precisely because of their increase in number, as an essential condition of access to work and in particular to certain quality professions. In other words, not having a diploma is becoming more and more of a minus point.
- Subjectively speaking, diplomas are increasingly becoming an investment for those who have them, helping them to improve their market position. Higher unemployment and the difficulties of finding a first "quality" job mean that the diploma has become most valuable as a key to employment. Paradoxically, the diploma-related professional expectations of certificate holders are not being completely satisfied, generating a phenomenon of dissatisfaction or subjective under-employment. To what extent (C. Buechtemann) do these changes in the value of diplomas on the market reflect changes in the "quality of the results produced by education"? To what extent has the increased number of diplomas changed their value as an indication of talent? How has the increase in the number of certificate holders changed the distribution of talent and increased its heterogeneity?
- Finally, as K. Schedler points out for Austria (although this also applies to other European countries), a large percentage of students (50% in Austria) abandon their studies before actually getting a diploma, which means that a large amount of school training is not being expressed in diploma form.

❑ What is the relationship between certificates (what they represent) and the skills which companies need?

This question was raised several times, particularly by H. Steedman, J. Pasquier and A. Dumont.

The main issues discussed under this point were:

- General considerations on changes in the nature, content and recognition both of diplomas and also of skills, and associated problems of information.
- The value of diplomas as an indicator of skills.
- The ability of companies to clearly show the skills which they require.
- The complexity of procedures for acquiring skills, and their recognition and legitimatisation on the labour-market.

Certain general considerations were raised on changes in the nature and content of qualifications and skills:

One of the problems with the link between the increase in diplomas and companies' skill requirements (C. Buechtemann) is that the overall spread of new information technology has not only created new occupations, it has also brought with it changes in organisation which means that different skills are being sought throughout the whole employment hierarchy, creating new across-the-board demand for skills which to some degree render obsolete professional profiles as they are traditionally defined, even in statistical nomenclature. This gives rise to major information problems at the "macro" level for both certificates and skills.

The skills of each individual, which it is difficult enough to recognise at the best of times, are not recorded at a statistical level. The question is: are certificates a good indicator of these skills? If not, is there one (or several) indicators which could better identify them?

On diplomas, several ideas were put forward:

- According to what was said during the debate, companies' qualification requirements are expressed in terms of skills, and diplomas are a very weak indicator for identifying them, particularly for adult employees. Adult employees' qualifications are largely made up of experience and continuous training.
- Moreover, (C. Buechtemann), the internal development of distinctions between training channels in European education systems has led to an increase in the heterogeneity of the "talents" and skills which diplomas represent.
- The race for diplomas (A. Dumont, J. Pasquier) has not, according to several participants, improved the situation of young people in companies although, according to others, it has improved the quality of human resources available to the companies which, some participants feel, follow a contradictory line of reasoning - when dealing with people responsible for education systems they demand more and more training, whereas when they are recruiting they systematically question the productive value of such training.
- In spite of all this, J. Tagliaferri felt that, when it comes down to it, despite their limitations diplomas are one of the only guarantees of skills and the capacity to go on acquiring them.

On company requirements:

- H. Steedman asked whether the growing consumption of highly qualified manpower (certificate holders) by companies really stems from a need for skills.
- A. Dumont stressed that companies do not require actual certificates, but rather skills. Covering company needs thus means that we must enter the "logic of professional skills", although given the great diversity of companies it is difficult to associate specific skills with any one occupation.
- According to this logic, firms need to recognise the skills of the individual, and this is impossible purely on the basis of the information provided by the certificate, which tends to be vague and inadequate.
- H. Steedman believes that employers interpret the qualifications which go along with certificates as signs of a capacity to learn rather than as indicators of knowledge

acquired. According to this line, the strategy of substituting those with fewer certificates by those with more is part of a policy to cut the cost of learning.

- In any case, as J. Pasquier pointed out, messages laying out company requirements must be improved. Companies give out different messages on what skills and qualifications are required when talking to universities to what they do in a staff recruitment context. In the former case they have a tendency to demand more and higher levels of education, whereas in the latter case they devalue the same levels of education.
- Moreover, the problem of skill requirements should not be tackled purely in terms of adapting to the needs of the moment, but rather in terms of forward-looking human resource management.
- In the messages coming from companies there is a possible contradiction between contracts which are often short-term, and the need to invest in skills which tends to be medium and long term.
- Finally, K. Drake underscored the need to approach the question the other way around: what should be done to ensure that companies are capable of using the skills of their employees? According to available data, we are far from using the full potential.

In terms of skill recognition:

- Although, as was mentioned by J. Tagliaferri, certificates provide only a vague and imperfect indication of skill, they are still one of the only universally recognised identification systems. The difficulties of replacing this system with one which recognises skills are immense, the two major ones being: **recognition/transparency**, and **legitimisation** by the various agents involved: employers, employees and education and training systems.
- In the present context and in the absence of any system of skill recognition, it is likely that, far from losing their value as a signal, certificates will increase in value since more pertinent signals do not exist.
- The creation of a new information system based on skills is becoming more important since skill requirements are changing rapidly and the labour-market is becoming more flexible and external to each company.
- Social dialogue seems essential for the construction of this type of system, although how exactly the different levels of this dialogue (company, sector, national, international, etc.) will swing in with one another is a tricky question.

❑ What role do diplomas play in the individual's training strategy?

As L. Frey stresses, the increase in numbers of diplomas is the result of a training strategy (the families', the States', and the companies'), which has poured all its efforts into initial training, indirectly creating a generation gap between those (the youngest), who can be defined by their diploma, and older individuals, who gained their qualifications through experience, usually starting from a low level of schooling.

Thus, the expansion of initial school education is also the result of demand from young people and their families although, as J. Pasquier stresses, this can be due to different reasons and under pressure of unemployment. Raising the level of certificate is therefore an essential part of the training strategy of young individuals who are aiming at a better first job and a better starting position for their professional career.

K. Schedler asks the question in the following terms: to what extent does a higher level of diploma really open up better career prospects?

Having lost some of their value on the labour-market, certificates have won it back as a necessary albeit inadequate condition of access to well-paid jobs linked to professional careers and providing preferential access to lifelong learning.

Inter-generational competition lurks behind the role of diplomas in the individual's training and recruitment process and their professional career. Certificates are a privileged characteristic of the younger generations, older ones tending to have informal qualifications. There are two reasons for this: firstly the younger the generation, the more it has been affected by the expansion of school systems, and secondly it stands to reason that older generations have more work experience than younger ones.

The key role played by diplomas in recruitment and professional promotion can be a de facto obstacle to the professional career and training of older employees, whilst at the same time it can lead to an inflationist approach in terms of school qualifications amongst younger individuals, who are in competition against the backdrop of high unemployment.

❑ What are the consequences of the answers to the above questions for the future of education and training systems?

The first observation came from B. Lutz, who was surprised to note that the phenomenon of distribution following the effect of supply is independent of the highly diverse initial training systems which exist in European countries.

The second observation was made by L. Frey, i.e. that the widespread increase in the delivery of diplomas stems from the common choice made by European countries to concentrate their investment on initial training (academic and for young people), this choice not corresponding to the approach of "lifelong learning for all" (L. Frey).

The majority of skilled workers in France (86%) , adds A. Dumont, have never taken part in continuous training.

According to L. Frey, in the light of these facts we must give priority to the retraining of adults (including older people) at the same time as increasing the level of training amongst young people.

The new demand for training and the new training offers are replacing the role of the school; school systems cannot be asked either to take on board or to organise lifelong learning, nor to provide each and every company with the skills it requires.

In future schools could be seen as constituting a "central" though not unique part of a system made up of sub-systems, most parts of which already exist (school, training institutes, companies, etc.), but which must be organised on the basis of recognition of all its components, whilst permitting a multi-coded reading - "skills", knowledge, qualifications - of training acquired, wherever and whenever this occurred.

This sort of approach would inevitably have a major effect on the nature and content of all training activity (from school to work experience) and on its financing. What effects are we talking about?

During discussions on the effects on the nature and content of training activity, only a few aspects were mentioned: O. Lübke pointed out that, in a context of rapid change and increased mobility, vocational training should continue to provide for the broadest possible qualifications. A. Dumont stresses that school training should concentrate on and perhaps even limit itself to ensuring that individuals learn what they need in order to integrate socially and provide them with the foundations for building up their skills, whilst it would be up to the companies to pool the knowledge and ability of individuals in order to shape the skills which they require (the discussions were left open on the role of the company in the training process - subject of forthcoming AGORA Seminar).

On financing, the main point centred on the implications of this approach for the allocation of public funds earmarked for training. The difficulties faced by public budgets (L. Frey) mean that it is very difficult to set priorities. A redistribution of funds would either mean increasing the budget or increasing the individual's participation in those areas of initial training which are virtually free of charge.

How would that go down with families and individuals?

CEDEFOP — European Centre for the Development of Vocational Training

AGORA — I
Raising the level of diplomas and their distribution on the labour market: the lessons of the past and prospects for the future

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In ancient Greek the word agora means the market place or square where matters of public concern are discussed. In creating the Agora Thessalonikis, CEDEFOP wants to reflect this idea.

The main aim of the Agora Thessalonikis is to create a forum for open multilateral discussion in order to provide technical and scientific support for the decisions and negotiations on vocational training which involve the various partners (European Commission, and social and governmental partners) within the European framework.

The theme of the seminar was 'The rise in the level of diplomas across the labour market: past lessons and future questions'.

Discussions developed from an introductory memo which is attached to this booklet. Entitled 'Diplomas and the labour market: results and questions from European research', it was drafted on the basis of the CEDEFOP survey, under the responsibility of Professor Louis Mallet, the project leader.

During the introduction the other invited experts, Professor Christoph F. Buechtemann, Santa Barbara, USA, Professor Hillary Steedman, London School of Economics, and Professor Luigi Frey, Rome University, gave their opinions on the questions up for discussion from different research angles, in order to provide an overview of the various approaches to the subject. Their presentations, drafted after the discussions, are also included in this booklet under the following titles: Buechtemann, C., 'Shift in skill demand', Steedman, H., 'Diplomas versus skills', Frey, L., 'Implications for the training strategies'.

Finally, the last chapter of this booklet which is entitled 'Diplomas and the labour market: the debate so far' aims at summing up the discussions which took place during the sessions of the seminar.

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